

## **Germany's provisional interest/role in GPM**

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(Peter Bauer, ECMWF)

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- Current Precipitation related project in Germany
- POLDIRAD (DLR-IPA) Oberpfaffenhofen (Research/Cloud physics)
- CERAD radar composite (Central Europe)
- The BALTEX Radar Data Centre
- Provisional Contributions: Scientific
- Provisional Contributions: Programmatic

# Ongoing TRMM-related research

## Project/Partners

## Application

### EUROTRMM (J. Testud, 1998-2001)

### Precipitation Assimilation

- ECMWF
- CESTP
- DLR-DFD
- IFA
- U Essex
- ....

### EURAINSAT (V. Levizzani, 2000-2003)

### Operational MSG

- U Bologna
- U Ferrara
- U Jerusalem
- DLR-DFD
- IFA
- ....
- Steering Committee (TRMM-ST-members)

# Ongoing GEWEX/BALTEX-related research

## Project/Partners

## Application

BALTIMOS (D. Jacob, 2001-2006)

Climate (Baltic Sea)

- MPIfM
- FU Berlin
- U Hamburg
- U Bonn
- U Hannover

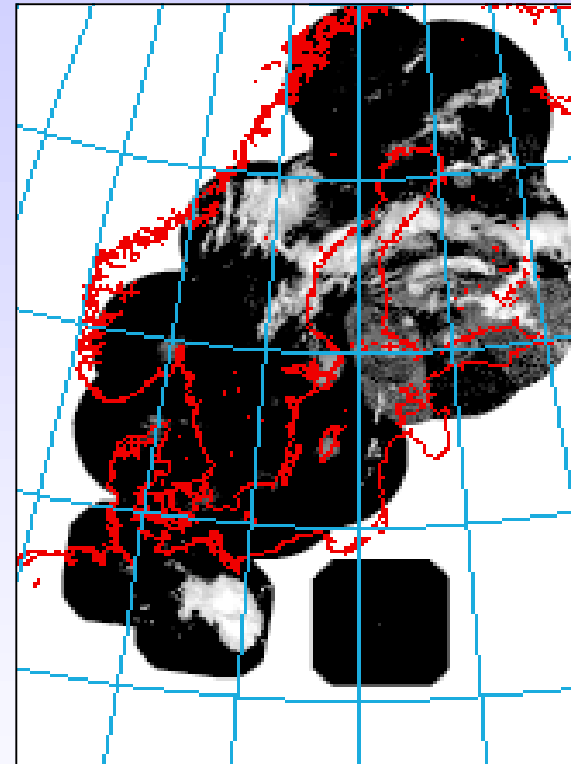
GPCC (WMO/DWD)

Climate

# The BALTEX Radar Data Centre (BRDC)

General characteristics	
Number of radars	25
Frequency	X-band (5 cm): 23; C-band(3 cm): 2 Doppler
Rain gauges	Approx. 600
Radar products	
Raw reflectivities (CAPPI, PCAPPI)	Available for entire area every 15 minutes
Gauge adjusted surface rain rates	Available for entire area every 15 minutes
Radar Volume scans	Partially available (Gotland radar only)
Data access	Currently 2-4 weeks for all products SMHI radars data are available in near real

# BRDC Coverage



BALTRAD  
radar composite

## **BRDC Data plans beyond 2003**

Validation site will be continuously available for the coming years within the framework of the Baltic Sea Experiment (BALTEX) and the GEWEX Coordinated Enhanced Observation Period (CEOP).

Swedish Radar: Available

Other European countries: Currently negotiations are underway to extend the temporal coverage of BRDC to at least 10 years (2009)

## **Interaction with GPM:**

Nowcasting (DWD, EUMETSAT Nowcasting SAF, SMHI, INM, FU)

Medium Range Forecasting/Assimilation (ECMWF, MPIfM, DWD)

Climate variability: Mid- High latitude snowfall, rainfall (FU, DLR, MPIfM)

Cloud physics research/validation site POLDIRAD DLR-IPA

Establish BALTEX Radar network/BALTEX Radar Data Centre as a high latitude GPM validation site (KU, FU, SMHI, ECMWF)



## **Precipitation at high latitudes**

As the height of the melting layer decreases scattering becomes increasingly important.

### **Ice and mixed phase precipitation microphysics.**

Strong need for high frequency passive mw channels with high spatial resolution (150 GHz).